

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.grants.gov/search/search.do;jsessionid=Hf6Hp9TGwx9Y1Z5ps0zssLMXkpnvRXDlQMrtHt04Lqzbbkw6v7Ml-1648198584?oppld=40514&flag2006=false&mode=VIEW	Department of Commerce (DOC)	2008-MSE-01	Deadlines vary	See full announcement for specifics	2008 Measurement, Science and Engineering (MSE) Research Grants Programs (1) Electronics and Electrical Engineering Laboratory (EEEL); (2) the Manufacturing Engineering Laboratory (MEL); (3) the Chemical Science and Technology Laboratory (CSTL); (4) the Physics Laboratory; (5) the Materials Science and Engineering Laboratory (MSEL); (6) the Building Research Grants and Cooperative Agreements Program; (7) the Fire Research Program; (8) the Information Technology Laboratory (ITL) Program; (9) the NIST Center for Neutron Research (NCNR); and (10) Center for Nanoscale Science and Technology (CNST.) Full details are found in the Full Announcement. Nanotech opportunities also can be found under the other laboratories - see full announcement.	The deadlines vary by program within the 2008 Measurement, Science and Engineering (MSE) Research Grants Programs, so the Full Announcement must be consulted for specific details.
http://www.nsf.gov/funding/pgm_summ.jsp?psid=501009	National Science Foundation (NSF)	PD 07-051	No fixed deadline	Not available	NSF-SIA/NRI Graduate Student and Postdoctoral Fellow Supplements to NSF Centers in Nanoelectronics (NSF 07-051) The National Science Foundation (NSF) in cooperation with the Semiconductor Industry Association (SIA) through the industry's Nanoelectronics Research Initiative (NRI) is again offering supplemental funding opportunities to NSF centers involved in nanoelectronics research to support additional graduate students and postdoctoral fellows to work in collaborative efforts with participating NRI company assignees on exploring new concepts beyond the scaling limits of CMOS (Complementary Metal Oxide Semiconductor) technology. These joint efforts are intended to enhance nanoelectronics research and education, strengthen industry linkages with NSF centers, and develop future cadres of industry and faculty researchers to help drive the field. The NSF Directorates participating are Engineering (ENG), Mathematical and Physical Sciences (MPS), and Computer and Information Science and Engineering (CISE).	
http://www.grants.gov/search/search.do;jsessionid=HtkSDVvph1csyTqvZp2m2R3K52F1pQ5sTzwfJvq6J6TZ1pyGt7mpl-1148754599?oppld=40574&flag2006=false&mode=VIEW	Air Force Office of Scientific Research (AFOSR)	BAA 2008-1	No fixed deadline	Varies, depending upon the topic	Research Interests of the Air Force Office of Scientific Research Nanotechnology interests can be found in the topics: Mechanics of Multifunctional Materials & Microsystems; Surface and Interfacial Science; Organic Materials Chemistry; Theoretical Chemistry; Molecular Dynamics; Polymer Matrix Composites; Space Power and Propulsion; Electro-Energetic Physics; Quantum Electronic Solids; Adaptive Multi-Mode Sensing and Ultra-High Speed Electronics; Semiconductor and Electromagnetic Materials; Optoelectronics: Components, Integration and Information Processing and Storage; Natural Materials and Systems; Reconfigurable Materials for Cellular Electronic and Photonic Systems; 7. Thermal Transport Phenomena and Scaling Laws	This announcement remains open until superseded. Proposals are reviewed and evaluated as they are received. Proposals may be submitted at any time during the year.
http://www.nsf.gov/funding/pgm_summ.jsp?psid=501024	National Science Foundation (NSF)	PD 08-1491	No fixed deadline	Average award: \$100K	Biotechnology, Biochemical, and Biomass Engineering (BBBE) The Biotechnology, Biochemical, and Biomass Engineering (BBBE) program deals with problems involved in economic processing and manufacturing of products of economic importance by effectively utilizing renewable resources of biological origin and bioinformatics originating from genomic and proteomic information. ... Research projects supported through the BBBE program include, but are not limited to: ... Nanobiotechnology.	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.mvk.usace.army.mil/contract/docs/FY2008.BAA.pdf	Army Corps of Engineers	FY-08-BAA	No fixed deadline	Not available	BAA for Engineer Research & Development Center Topic: F. Sensors, sensor systems, data acquisition, processing, and transmission (ITL-6) ... Some specific interest include artificial neural networks for processing and interpretation of sensory nanotechnology related to construction ...	Open until superceded.
http://www.nsf.gov/funding/pgm_summ.jsp?pi_ms_id=5373	National Science Foundation (NSF)	PD 07-3905	No fixed deadline	Not available	Inorganic, Bioinorganic and Organometallic Chemistry Supports research on the synthesis, properties, and reaction mechanisms of molecules composed of metals, metalloids, and nonmetals with elements covering the entire periodic table. Included are fundamental studies that underscore (4) studies aimed at the rational synthesis of new inorganic molecular substances, self-assemblies, and nano-size materials with predictable chemical, physical, and biological properties...	
http://www.nsf.gov/pubs/2003/nsf03568/nsf03568.htm	National Institute of Standards and Technology (NIST) National Science Foundation (NSF)	NSF 03-568	No fixed deadline	\$200K Annually	NSF-NIST Interaction in Chemistry, Materials Research, Molecular Biosciences, Bioengineering, and Chemical Engineering ... Ceramics: conducts programs pertinent to measurement issues for inorganic, non-metallic materials; current emphasis involves the development of test methodologies for nanoscale materials , the preparation of standard reference materials, and the evaluation and dissemination of standard reference data. ...	
http://www.nsf.gov/funding/pgm_summ.jsp?pi_ms_id=5389	National Science Foundation (NSF)	PD 05-1743	No fixed deadline	Not available	National Facilities Supports the operation of national user facilities: research facilities with specialized instrumentation available to the scientific research community in general and the materials research community in particular. These facilities provide unique research capabilities that can be located at only a few highly specialized laboratories in the nation. They include facilities and resources for research using high magnetic fields, ultraviolet and x-ray synchrotron radiation, neutron scattering, and nanofabrication.	
http://www.fbo.gov/spg/USAF/AFMC/AFRL/WS/BAA-05-02-HE/listing.html	Air Force Research Laboratory (AFRL)	BAA-05-02-HE	No fixed deadline	~\$49 M	Advances in Biotechnology and the Biosciences for Warfighter Performance and Protection ... Research supporting Cellular Dynamics and Engineering to capitalize on emerging developments in biological, informational and nano sciences. ...	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.vs.af.mil/SpaceScholars/topics.aspx?LocationId=1	Air Force Research Laboratory (AFRL)	See individual topic #'s	No fixed deadline	Not available	The Space Scholars Program has the following nano-topics available: 1-Advanced Photovoltaics for Space - Topic # RVSVHOWARD01 2-Nano-scale quantum transport - Topic # RVSEEDWARDS03 3-Semiconductor nanowires- Topic # RVSESHARMA01	
http://www.afosr.af.mil/Documents/funding_AFINanoInitiativeBAA.htm	Air Force Office of Scientific Research (AFOSR)	Amendment to AFOSR BAA 2005-1	No fixed deadline	Not available	AFRL Nanotechnology Initiative Research in the following five areas: (1) Multispectral Detector Arrays, (2) Chip Scale Optical Networks, (3) Compact Power for Space, (4) Nanoenergetics , and (5) Nanomaterials for Structures . Currently, white papers or preliminary proposals may be sent to appropriate program managers for future consideration.	This is a modification to the AFOSR BAA 2005-1. Research opportunities are in addition to those listed in the BAA 2005-1.
http://www.afosr.af.mil/pdfs/afosr_baa_2007_1.pdf	Air Force Office of Scientific Research (AFOSR)	BAA 2007-1	No fixed deadline	See full announcement for specifics	Broad Agency Announcement (BAA) Nanotopics include (but are not limited to): Topic: Structural Mechanics: ... Novel structural concepts that support air- and space-based applications are of interest at any scale (nano , MEMS, large deployable structures) and for any purpose (sensing, control, stiffening, actuation, etc.). Topic: Mechanics of Multifunctional Materials & Microsystems ... nano electromechanical systems . Topic: Space Power and Propulsion: ... Research activities include fundamental component and system level research that leads to the introduction of novel multi-use technologies and concepts, and their efficient integration at various length scales, in order to achieve multifunctional satellite architectures. It includes the development of highly efficient power generation/recovery systems (e.g. MEMS turbines, nano-structured thermoelectric units) that are deeply integrated with thermal management or spacecraft structure.	
http://heron.nrl.navy.mil/contracts/RFP/08se04.htm	Naval Research Laboratory (NRL)	N00173-08-R-SE04	No fixed deadline	Not available	A -- Laboratory and At-Sea Based Acoustic Techniques Studies The Naval Research Laboratory has a requirement for research and development support related to laboratory-based and at-sea acoustic technique studies involving invention, development, implementation and upgrade of a number of acoustic measurement techniques and facilities. The tasks include model, measure and exploit acoustic, physical acoustic and structural acoustic phenomena, apply the resulting models to target recognition and detection problems, sound diagnosis and control systems, fault detection and identification systems, and the new sensor and processing devices and to evaluate and implement new techniques for sensing, producing, computing, processing, displaying and understanding underwater and in-air acoustic signals resulting from a wide variety of sound-fluid-structure interactions and mechanical vibrations of high-Q oscillator structures. Additionally, this research will be conducted for the purpose of integration into a number of major structural acoustic pool, mechanical dynamics, AUV and other at-sea measurement systems and computational facilities at the Naval Research Laboratory. The research and engineering areas include sound-structure-fluid interactions; fiber optic sensing telemetry and processing; nearfield acoustic holography; robotic conformal scanning technology; finite element/boundary element and Kirchhoff numerical/analytical modeling; advanced sonar signal processing; acoustic and structural intensity; vibration, scattering and radiation of complex shell and plate structures; laboratory based acoustic measurement systems; and computer science. Additional research areas include nanomechanics; finite-element/infinite element methods; inverse scattering; target recognition, detection and identification. Support is required for the following task areas: ... (14) micro-nano structures studies ...	Closing date: TBD

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.fbo.gov/spg/ODA/DARPA/CMO/SN08-23/listing.html	Defense Advanced Research Projects Agency (DARPA)	SN08-23	4/2/2008	Not available	A -- Request for Information (RFI): Contact-Lens Scale See-Through Displays The Defense Advanced Research Projects Agency (DARPA) Information Processing Techniques Office (IPTO) is requesting information on technology areas for the creation of micro- and nano-scale display technologies for the purpose of creating displays that could be worn as transparent contact lenses.	
http://grants.nih.gov/grants/guide/pa-files/PA-06-084.html	NIH-National Institute of Biomedical Imaging and Bioengineering, National Institute Of Dental And Craniofacial Research	PA-06-084	4/2/2008	Phase I: Up to \$150K per year / up to 2 years. Phase II: Up to \$500K per year / up to 3 years	Drug Delivery Systems for Orofacial Disease (STTR [R41/R42]) This FOA will focus on the improvement and adaptation to the oral environment of existing drug delivery as well as on the design and development of new systems for sustained, controlled oral drug delivery. Examples of research topics that would be considered in this FOA include but are not limited to: -- dental restorative materials with nanoscale -oriented deposition of materials, and biomimetic polymers that can deliver antimicrobial agents. -- nanoparticles and other nanostuctures that enable controlled release of therapeutic agents, antibodies, antisense oligonucleotides and genes into targeted cells.	
http://grants.nih.gov/grants/guide/pa-files/PA-06-085.html	NIH-National Institute of Biomedical Imaging and Bioengineering, National Institute Of Dental And Craniofacial Research	PA-06-085	4/2/2008	Phase I: Up to \$150K per year / up to 2 years. Phase II: Up to \$500K per year / up to 3 years	Drug Delivery Systems for Orofacial Disease (SBIR [R43/R44]) This FOA will focus on the improvement and adaptation to the oral environment of existing drug delivery as well as on the design and development of new systems for sustained, controlled oral drug delivery. Examples of research topics that would be considered in this FOA include but are not limited to: -- dental restorative materials with nanoscale -oriented deposition of materials, and biomimetic polymers that can deliver antimicrobial agents. -- nanoparticles and other nanostuctures that enable controlled release of therapeutic agents, antibodies, antisense oligonucleotides and genes into targeted cells.	
http://www.nsf.gov/funding/pgm_summ.jsp?psid=13338	National Science Foundation (NSF)	NSF 08-530	4/3/2008	\$2.4M	Ethics Education in Science and Engineering (EESE) ... Another example might involve a focus on new developments in science and engineering. In emerging areas of biotechnology or nanotechnology , for instance, can relevant ethical questions be identified and examined in an intellectually engaging and broadly adaptable fashion? How does attention to ethical questions and standards for practice diffuse through graduate curricula? Can the diffusion be improved? ...	Full Proposal Deadline(s) : April 03, 2008 March 02, 2009 March 01, 2010

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.fto.gov/spe/DOC/NIST/AcAsD/SB134108RQ0121/listing.html	National Institute of Standards and Technology (NIST)	SB134108RQ0121	4/8/2008	Not available	<p>A -- New Sample Preparation Procedures for Scanning Electron Microscopy with Polarization Analysis (SEMPA)</p> <p>The Scanning Electron Microscopy with Polarization Analysis (SEMPA) facility at the National Institute of Standards and Technology (NIST) in Gaithersburg, Maryland requires new sample preparation procedures that will enable imaging magnetic nanostructures found in difficult-to-clean, but technologically important materials. Some examples of these materials are magnetic oxides, multiferroics, metallic films that are only a few atomic layers thick, and multilayers composed of ultrathin films. These new materials are used in recent technological advances that enable manipulating magnetism and spin in nanoscale devices. As part of our ongoing Center for Nanoscale Science and Technology (CNST) nanomagnetism program, we have an immediate need to be able to use SEMPA to image magnetic nanostructures in samples composed of these novel materials in order to support advances in the spintronics and magneto-electronics industries. Our SEMPA measurements require samples with atomically clean surfaces, which we currently obtain by sputtering with several-hundred-volt argon ions. Ion sputtering, however, can cause significant damage to this latest generation of nanostructured magnetic materials and thus cannot be used. We therefore require development of new sample cleaning techniques that do not damage the delicate materials we intend to use. Furthermore, these techniques must be able to be implemented in a custom cleaning chamber constructed as an extension of the existing SEMPA instrument. Design and construction of this chamber requires full knowledge and understanding of the principles, operation, and environmental requirements of the NIST SEMPA technique.</p>	
http://www.nsf.gov/funding/pgm_summ.jsp?psid=503223	National Science Foundation (NSF)	NSF 08-534	4/11/2008	<p>2007-2011-- \$58M over a five-year period for ARI solicitations to be awarded through NSF and DNDO.</p> <p>In fiscal year 2008, the total funding available for this solicitation is \$3M for the first year of these awards</p>	<p>Domestic Nuclear Detection Office/National Science Foundation Academic Research Initiative (ARI)</p> <p>Under the broad category of nuclear detection, examples of possible topics that build on previous DNDO/DHS or NSF-supported research include:</p> <p>Science and Engineering of Detector Materials, Concepts and Designs for New Sensors and Sensing Systems. Proposed research should have the potential to lead to sensors or sensor systems that are sensitive, selective, and stable with rapid response times. A unifying theme is to stimulate fundamental advances for in situ and remote sensing systems with a goal toward observing, modeling, and analyzing a wide range of nuclear threats. Research to significantly improve the yield and performance of sensor materials beyond those presently available is needed. This includes development and improvement of scintillator materials (e.g., faster response, higher light output, better linearity, and improvements in growth and fabrication) as well as semiconductor materials (e.g., reducing impurities, optimizing charge collection, allowing room temperature operation, and innovatively improving blocking contacts) with the goals of excellent efficiency and energy resolution. Proposed research should leverage recent advances in materials, molecular design (e.g., synthetic and theoretical chemistry), nanotechnologies (e.g., particles, molecules, clusters, quantum dots, and ceramics), microelectronics, photonics, telemetry, robotics, wireless communication, geographic information systems, sensor networks, and other methods for highly resolved spatial, spectral and temporal sensing.</p>	<p>Full Proposal Deadline(s) :</p> <p>April 11, 2008 April 01, 2009 First Wednesday in April, Annually Thereafter through 2011</p>
https://e-center.doe.gov/iips/faqopor.nsf/UNID/89AE3A03437943EF852573ED006F9C927?OpenDocument	Department of Energy (DOE)	DE-PS02-08ER08-17	4/18/2008	\$750K	<p>Funding Opportunity Notice for FY 2008 SBIR/STTR Phase</p> <p>The Department of Energy (DOE) invites all DOE SBIR/STTR Phase I Awardees from FY 2007 to submit Phase II grant applications. The Department may also reconsider previously submitted, peer-reviewed, high ranking Phase II grant applications from FY 2007. However, this is only at the discretion and request of the DOE Project Officer. Those applicants do not have an opportunity to reapply. If a previously submitted application is selected for funding, the applicant would have an opportunity to determine if they are still interested and able to pursue the Phase II research project.</p>	<p>Phase I DE-PS02-07ER07-36. See URL: http://e-center.doe.gov/iips/faqopor.nsf/1be0f2271893ba198525644b006bc0be/dfa3c9c3f152538a8525735c004633bb?OpenDocument</p>

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.nsf.gov/pub/s/2007/inst07530/ref07530.htm	National Science Foundation (NSF)	NSF 07-530	4/24/2008	~\$46M each year will be available for this program in FY08, FY09, and FY10	Advanced Technological Education (ATE) Because the foundation of America's competitiveness is a well-educated and skilled workforce, the ATE program is a vital component of the American Competitiveness Initiative as the program prepares science and engineering technicians for the many fields on which the nation's prosperity hinges. Many of these fields also play a vital role in national security and sustainable energy production and management. Fields of technology supported by the ATE program include, but are not limited to, agricultural technology, biotechnology, chemical technology, civil and construction technology, computer and information technology, cybersecurity and forensics, electronics, environmental technology, geographic information systems, manufacturing and engineering technology, marine technology, multimedia technology, nanotechnology , telecommunications, and transportation technology. The ATE program does not support projects that focus primarily on students who will become health, veterinary, or medical technicians.	Preliminary Proposal Due Date(s): April 24, 2008 April 23, 2009 Full Proposal Deadline(s) : October 11, 2007 October 16, 2008 October 15, 2009
http://www.nsf.gov/funding/pgm_summ.jsp?psid=13374	National Science Foundation (NSF)	NSF 08-542	4/30/2008	\$9 M total \$100K / year & 150K / year multiple universities Exploratory Projects \$500K / 2-3 years, Expansion projects	Innovations in Engineering Education, Curriculum, and Infrastructure (IEECI) Project area: Engineering Learning Mechanisms: Research on engineering learners' developing knowledge and competencies in context, with special interest in evolving areas of nanotechnology, service science, and the intersection of biology and engineering.	
http://www.fbo.gov/spg/USA/USAMC/DAAE07/DAAE07-03-C-L103-P00006/listing.html	U.S. Army TACOM	DAAE07-03-C-L103-P00006	5/6/2008	Not available	A -- Continuation of effort under Contract DAAE07-03-C-L103 for parametric studies of the nanocomposites This is a combined synopsis/solicitation for the continuation of effort (modification P00006) under cost plus fixed fee type Contract # DAAE07-03-C-L103, awarded to CREATE, INC. (a small business), for multiscaled thermal analysis of multifunctional nanocomposites with defective carbon nanotubes to develop a hierarchical approach by providing complex multiphysical multiscaled mathematical homogenization models to identify thermal behavior on CNT-polymer composite atomistic systems.	The required period of performance of this continuation effort is twelve (12) months.
http://www.onr.navy.mil/02/baa/docs/08-007_ONR%20BAA%2008-007.pdf	Navy-Office of Naval Research (ONR)	BAA 08-007	5/7/2008	Total: \$4M for 4 years Max award \$1.5M per year	Fiscal Year (FY) 2008 Office of Naval Research Basic Research Challenge (BRC) Program Nanotechnology research interests can be found under the following topic: Topic # 2: Autonomous Devices for Advanced Personnel Treatment (ADAPT)	White Papers: Monday 07 April 2008

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.fbo.gov/spg/USA/USAMC/DAAH01/W31P4Q%2D07%2DR%2DBAA5/listing.html	Army-Aviation & Missile Research, Development and Engineering Center	W31P4Q-07-R-BAA5	5/7/2008	Awards up to \$100K-\$30M range	<p>A – Broad Agency Announcement for Innovative Technologies to support the US Army Aviation and Missile Research, Development and Engineering Center, Applied Sensors Guidance and Electronics Directorate</p> <p>Topic: H. Nanotechnology for Aviation, Missile and Space Applications</p> <p>1. Nano Materials, 2. Coatings and Composites 3. NanoElectroMechanical Systems (NEMS) and Nano Electronics 4. Nano Optical Devices 5. Nano Energetics 6. Nano-Scale Technologies: including Sensors 7. Other Applicable Nanotechnologies</p>	
http://www.fbo.gov/spg/EPA/QAM/CMD/PR-NC-08-10259/listing.html	Environmental Protection Agency (EPA)	PR-NC-08-10259	5/14/2008	Not available	<p>A--Small Business Innovative Research</p> <p>The EPA contemplates awarding approximately twenty-five (25) firm-fixed price contracts under the Small Business Innovative Research (SBIR) Program Phase I, during Fiscal Year 2009. During Phase I (covered by this solicitation) contractors shall conduct feasibility-related experimental research or R&D efforts on the following agency topics: A) Innovation In Manufacturing; B) Nanotechnology; C) Green Buildings; D) Drinking Water and Water Monitoring; E) Water Infrastructure Rehabilitation; F) Monitoring and Control of Air Pollution; G) Biofuels and Vehicle Emissions Reduction; H) Waste Management and Monitoring; and I) Homeland Security.</p>	
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf08544	National Science Foundation (NSF)	NSF 08-544	5/14/2008	\$1.9 M; \$200K per award for 2 years	<p>Nanotechnology Undergraduate Education (NUE) in Engineering</p> <p>NUE emphasizes new approaches to undergraduate engineering education through interdisciplinary collaborations. These collaborations could lead to, but are not limited to:</p> <p>A freshman course introducing the basic phenomena and processes at the nanoscale, the unifying principle of matter at the nanoscale, connections to other disciplines, and application areas of societal relevance; New examples of undergraduate nanoscale engineering courses that are presented through the development of laboratory and demonstration experiments, manuals and other written materials, software, and web-based resources; Development and dissemination of new teaching modules for nanoscale engineering of relevance to engineering education that can be used in existing undergraduate courses; Incorporation of undergraduate research opportunities in nanoscale engineering into the curriculum at any level; and Development of courses or curricular enhancements related to nanoscale engineering and technology and environmental or social change.</p>	
http://es.epa.gov/ncer/rfa/2008/2008_sbir_phase1.html	Environmental Protection Agency (EPA)	PR-NC-08-10259	5/21/2008	<p>Phase I: \$70K / 6 months</p> <p>Phase II: \$225K / 24 months</p> <p>Phase II Commercial option: \$70K</p> <p>Phase II Verification Testing Option: \$50K</p>	<p>Small Business Innovation Research (SBIR): Phase I Program Solicitation</p> <p>EPA is interested in advanced technologies that address the following EPA topics: Innovation in Manufacturing, Nanotechnology (see topic B.), Green Buildings, Drinking Water and Water Monitoring, Water Infrastructure Rehabilitation, Monitoring and Control of Air Pollution, Biofuels and Vehicle Emissions Reduction, Waste Management and Monitoring and Homeland Security. The proposed research must directly pertain to EPA's environmental mission and must be responsive to EPA program interests included in the topic descriptions in this solicitation.</p>	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.onr.navy.mil/02/BAA/docs/BAA%2008-012_ONR%20BAA%2008-012.pdf	Navy-Office of Naval Research (ONR)	ONR BAA 08-012	5/22/2008	Total: \$50M over a 3-year period Individual award: \$300K to \$3M per year	BROAD AGENCY ANNOUNCEMENT (BAA): Expeditionary Maneuver Warfare Applied Research and Advanced Technology Development Nanotechnology research interests can be found under the following topics: 5. Nanotechnology-Enabled Witness Fields 6.2. Intelligence, Surveillance, & Reconnaissance (ISR)	White Papers Due: 03 April 2008
http://www.nsf.gov/eng/lip/sbir/stop.jsp	National Science Foundation (NSF)	NSF 08-548	6/10/2008	Phase I: \$100K / 6 months max Phase II: \$500K / 24 months max	Small Business Innovation Research Program Phase I Solicitation FY-2009 (SBIR) Topic: Biotech and Chemical Technologies: Nanotechnology topics throughout. Topic: Electronics, Components, and Engineering Systems (EL Topic): Nanotechnology topics throughout	Second proposal due date: December 4, 2008 Do not submit proposals prior to November 4, 2008.
http://www.fbo.gov/spg/ODA/MDA/WASHDC1/HQ0006%2D06%2DMDA%2DBAA/Synopsi sR.html	Missile Defense Agency (MDA)	HQ0006-06-MDA-BAA	7/31/2008	Not available	A – Missile Defense Agency Broad Agency Announcement for Advanced Technology (MDA/DV) Topic (5) Physics, Chemistry, and Materials: including the study of phenomenology associated with missile detection, tracking, and discrimination, Infrared and Optical Signatures, Energy Conversion, Rocket Plume Analysis, spectral imaging for threat/decoy discrimination, and the integration of the conventional silicon technology with new nanostructures (i.e., carbon Nanotubes or nano materials) for the next generation of interceptor sensors.	
http://www.nsf.gov/funding/pgm_summ.jsp?pi ms_id=5324	National Science Foundation (NSF)	NSF 08-553	8/1/2008	See solicitation for specific details	Science, Technology, and Society (STS) Ethics and Values in Engineering, Science, and Technology (EVS). Research on ethics, values, and the conduct and social influence of science, engineering, and technology often takes its lead from current social issues where inventions or innovations raise normative or ethical questions. It often uses historical and philosophical modes of analysis and the theories and methods of science and technology studies, applied ethics, or other areas of the social sciences and humanities. Information and analysis from the natural and physical sciences and engineering may also play a role in this research. Proposal topics appropriate to EVS include, but are not limited to: Scientific or professional ethics, including research ethics; equity issues in the development, use and effects of science or technology; controversy and the resolution of controversy involving science or technology; normative issues in decisions involving science or technology; ethical and value issues for organizational policy and practice involving science, engineering, or technology; ethics, values, and the relationship of scientific and technical expertise to democratic decision making; ethics and values as they shape or are shaped by biotechnology, environmental science, Nanotechnology , the World Wide Web or similarly transforming sciences and technologies.	Full Proposal Target Date(s): August 01, 2008 February 01, 2009 February 1, Annually Thereafter August 01, 2009 August 1, Annually Thereafter

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.nsf.gov/funding/pgm_summ.jsp?psid=5324	National Science Foundation (NSF)	NSF 05-588	8/1/2008	See solicitation for specific details	Science and Society (S&S) ... The S&S Program is also responsible for representing the Social, Behavioral and Economic (SBE) sciences in priority areas and other cross-directorate initiatives, like the Nanotechnology priority area, in which SBE involvement is likely to focus on the historical development, ethical and social influence or philosophical foundations of the science or technology that is the focus of the priority area or initiative. The S&S Program promotes the study of the sciences supported by the various NSF Directorates with respect to their historical, ethical, social, philosophical and policy dimensions. Cross-directorate collaborations are encouraged.	Full Proposal Target Date: February 1, 2009
http://grants.nih.gov/grants/guide/pa-files/PA-06-009.html	National Institutes of Health (NIH)	PA-06-009	8/2/2008	Phase I: Up to \$200K per year / up to 2 years (up to \$400K total) . Phase II: Up to \$400K per year and up to 3 years (up to \$1.2 M total)	Bioengineering Nanotechnology Initiative – SBIR (R43/R44) This Funding Opportunity Announcement (FOA), issued as an initiative of the trans-NIH Bioengineering Consortium (BECON) on behalf of the participating NIH Institutes and Centers, invites grant applications for Small Business Innovation Research (SBIR) projects on nanotechnologies useful to biomedicine. Nanotechnology is defined as the creation of functional materials, devices and systems through control of matter at the scale of 1 to 100 nanometers, and the exploitation of novel properties and phenomena at the same scale. Nanotechnology is emerging as a field critical for enabling essential breakthroughs that may have tremendous potential for affecting biomedicine. Moreover, nanotechnologies developed in the next several years may well form the foundation of significant commercial platforms that shift the paradigms of clinical applications.	
http://grants.nih.gov/grants/guide/pa-files/PA-06-008.html	National Institutes of Health (NIH)	PA-06-008	8/2/2008	Phase I: Up to \$200K per year / up to 2 years (up to \$400K total) . Phase II: Up to \$400K per year / up to 3 years (up to \$1.2 M total)	Bioengineering Nanotechnology Initiative (STTR [R41/R42]) This Funding Opportunity Announcement (FOA), issued as an initiative of the trans-NIH Bioengineering Consortium (BECON) on behalf of the participating NIH Institutes and Centers, invites grant applications for Small Business Innovation Research (SBIR) projects on nanotechnologies useful to biomedicine. Nanotechnology is defined as the creation of functional materials, devices and systems through control of matter at the scale of 1 to 100 nanometers, and the exploitation of novel properties and phenomena at the same scale. Nanotechnology is emerging as a field critical for enabling essential breakthroughs that may have tremendous potential for affecting biomedicine. Moreover, nanotechnologies developed in the next several years may well form the foundation of significant commercial platforms that shift the paradigms of clinical applications.	
http://grants1.nih.gov/grants/guide/pa-files/PA-07-234.html	NIH-National Institute of General Medical Sciences	PAR-07-234	8/30/2008	Size and duration of each award will vary	Molecular Probes for Microscopy of Cells (R01) The objectives of this initiative include the following examples but are not limited to: ... Methods for packaging externally administered probes (e.g., dyes and nanoparticles), delivering them into the cytoplasm of living cells, and directing them to their subcellular destinations and molecular targets without disrupting cellular physiology and with low or zero background of untargeted probe. ...	Reissue of PAR-06-288
http://grants.nih.gov/grants/guide/pa-files/PA-07-072.html	NIH-Multiple agencies	PA-07-072	9/2/2008	Not available	Biobehavioral Methods to Improve Outcomes Research (R01) Utilizing nanotechnology that may herald a new paradigm for investigating behavioral/biological interfaces, predicting and preventing diseases, and personalizing therapies to improve and maximize health is needed. Nanotechnology may be cross linked to other health care disciplines to provide a quantitative measurement of biological processes.	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://grants.nih.gov/grants/guide/pa-files/PA-07-008.html	National Institutes of Health (NIH)	PA-07-008	9/2/2008	Direct costs are limited to \$275K / 2-year period, with no more than \$200K direct costs allowed in any single year.	Biobehavioral Methods to Improve Outcomes Research (R21) Utilizing nanotechnology that may herald a new paradigm for investigating behavioral/biological interfaces, predicting and preventing diseases, and personalizing therapies to improve and maximize health is needed. Nanotechnology may be cross linked to other health care disciplines to provide a quantitative measurement of biological processes.	
http://grants.nih.gov/grants/guide/pa-files/PA-06-012.html	National Institutes of Health (NIH)	PA-06-012	9/8/2008	STTR funds will not be set-aside explicitly for this funding opportunity as applications received in response to this FOA will compete with all other STTR applications. As a point of reference, the NIH STTR budget for FY 2005 was \$69M.	Manufacturing Processes of Medical, Dental, and Biological Technologies (STTR [R41/R42]) Manufacturing innovation is fostered by research and development of technologies that are aimed at increasing the competitive capability of manufacturing concerns. Broadly speaking, manufacturing-related R&D encompasses improvements in existing methods or processes, or wholly new processes, machines or systems. Topics include: ... Machine level technologies that create or improve manufacturing equipment, including (1) improvements in capital equipment that create increased capability (such as accuracy or repeatability), increased capacity (through productivity improvements or cost reduction), or increased environmental efficiency (safety, energy efficiency, environmental impact), and (2) new apparatus and equipment for manufacturing, including additive and subtractive manufacturing, deformation and molding, assembly and test, semiconductor fabrication, and nanotechnology .	
http://grants.nih.gov/grants/guide/pa-files/PA-06-013.html	National Institutes of Health (NIH)	PA-06-013	9/8/2008	SBIR funds will not be set-aside explicitly for this funding opportunity as applications received in response to this FOA will compete with all other SBIR applications. As a point of reference, the NIH, CDC, and FDA SBIR budgets for FY 2005 were: NIH, \$571M; CDC, \$8M; & FDA, \$800K	Manufacturing Processes of Medical, Dental, and Biological Technologies (SBIR [R43/R44]) Manufacturing innovation is fostered by research and development of technologies that are aimed at increasing the competitive capability of manufacturing concerns. Broadly speaking, manufacturing-related R&D encompasses improvements in existing methods or processes, or wholly new processes, machines or systems. Topics include: ... Machine level technologies that create or improve manufacturing equipment, including (1) improvements in capital equipment that create increased capability (such as accuracy or repeatability), increased capacity (through productivity improvements or cost reduction), or increased environmental efficiency (safety, energy efficiency, environmental impact), and (2) new apparatus and equipment for manufacturing, including additive and subtractive manufacturing, deformation and molding, assembly and test, semiconductor fabrication, and nanotechnology .	
http://grants.nih.gov/grants/guide/pa-files/PA-06-287.html	NIH-National Heart, Lung, and Blood Institute, National Institute of Environmental Health Sciences	PAR-06-287	9/13/2008	R21 phase: Max \$250K per year. R33 phase: Less than \$500K per year.	Innovative Application of Nanotechnology to Heart, Lung, Blood, and Sleep Disorders (R21/R33) The purpose of this initiative is to encourage the application of novel, high-risk strategies based on nanotechnology to diagnose and treat heart, lung, blood, and sleep disorders, including the identification of environmental influences to those disorders.	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://grants.nih.gov/grants/guide/pa-files/PA-06-243.html	NIH-National Heart, Lung, and Blood Institute	PAR-06-243	9/13/2008	R21 phase: Max \$250K per year. R33 phase: Less than \$500K per year.	New Approaches to Non-Viral Systems for Gene Transfer Applications for Heart, Lung, and Blood Diseases (R21/R33) The purpose of this Funding Opportunity Announcement (FOA) issued by the National Heart, Lung, and Blood Institute (NHLBI), National Institutes of Health (NIH), is to foster applications from organizations/institutions that propose the development of new and efficient non-viral vectors that can overcome the limitations of viral vectors and be used for gene therapy clinical trials in heart, lung, and blood diseases. [See full text- nanotechnology research interests found throughout the solicitation]	
http://www.darpa.mil/BA/RA07-44.html	Defense Advanced Research Projects Agency (DARPA)	RA07-44	9/14/2008	Not available	Young Faculty Award (YFA) The Young Faculty Award (YFA) is expected to provide MTO with revolutionary research ideas that are critical to future technology developments. This solicitation is for single-author grant proposals for concept development and validation in one, or combinations of, the following thrust areas of interest to MTO: 1) electronics, 2) photonics, 3) micro and nano electro mechanical systems (MEMS/NEMS), 4) architectures, and 5) algorithms.	
http://www.nsf.gov/funding/pgm_summ.jsp?ps_id=13363	National Science Foundation (NSF)	PD 08-1417	9/15/2008	Average award: \$80K	Chemical and Biological Separations Areas of emphasis include separation of biological molecules and separations that lead to environmentally benign processing. Much of the current work involves the investigation of new membrane materials such as novel polymers, zeolites, mixed matrix materials, carbon nanotubes , biological and biomimetic materials, and glasses. Projects on modeling transport processes - especially at the molecular level - in membranes are supported by the program. For the hydrogen economy, membranes that selectively transport atomic, molecular, or ionic hydrogen and oxygen are required. Research topics in CBS include fundamental molecular-level work on: ... Nanostructured materials for separations...	Deadline dates are March 1 and September 15
http://www.nsf.gov/funding/pgm_summ.jsp?ps_id=13366	National Science Foundation (NSF)	PD 08-1407	9/15/2008	Average award: \$80K	Combustion, Fire, and Plasma Systems This program is not an applied research program, but rather it provides broad, basic knowledge that can be used by others in development of systems for combustion and plasma applications and for mitigating the effects of fire. Broad-based tools - computational, experimental, or diagnostic - that can be applied to a variety of problems in combustion, fires, and/or plasmas are major products of this endeavor. Areas of interest include: ... Projects that intersect nanotechnology and either combustion, fire, or plasma science ...	Deadline dates are March 1 and September 15

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.nsf.gov/funding/pgm_summ.jsp?psid=501030	National Science Foundation (NSF)	PD 08-1179	9/15/2008	Average award: \$80K	Environmental Implications of Emerging Technologies The Environmental Technology program provides support to develop and test new technologies across the activities in the field of environmental engineering. These include new devices and systems for more effective pollutant removal from air and water, as well as new technologies that minimize or avoid the pollutant generation inherent in older commercial and domestic processes and activities. Fundamental and basic research is solicited in establishing and understanding results in topical areas sought. The program also supports research on the development and refinement of sensors and sensor network technologies that can be used to measure a wide variety of physical, chemical, and biological properties of interest in characterizing, monitoring, and understanding environmental systems. ... Current areas of support include: Nanotechnology , environmental, health, and safety implications and applications ...	Full Proposal Window: August 15, 2008 - September 15, 2008
http://www.nsf.gov/funding/pgm_summ.jsp?psid=13362	National Science Foundation (NSF)	PD 08-1414	9/15/2008	Average award: \$80K	Interfacial Processes and Thermodynamics The [...] program supports fundamental research in engineering areas related to: Interfacial phenomena, Mass transport phenomena, Solution phase equilibrium thermodynamics ... Examples of research related to interfacial phenomena, mass transport, and phase equilibrium: ... Transport in nanoporous systems; Self-assembly and crystallization in nanoscale environment; Nanostructure control via surfactant mixing and polymerization. ...	Full Proposal Window: August 15, 2008 - September 15, 2008
http://www.nsf.gov/funding/pgm_summ.jsp?psid=13360	National Science Foundation (NSF)	PD 08-1401	9/15/2008	Average award: \$100K	Catalysis and Biocatalysis This program promotes multidisciplinary research in: ... Synthesis and characterization of catalysts that function at the nanoscale .	Deadline dates are March 1 and September 15
http://www.nsf.gov/funding/pgm_summ.jsp?psid=13365	National Science Foundation (NSF)	PD 08-1443	9/15/2008	Average award: \$80K	Fluid Dynamics The Fluid Dynamics program supports fundamental research and education on mechanisms and phenomena governing fluid flow. Topics include: hydrodynamic stability; transitional flows and turbulence; Newtonian and non-Newtonian fluid mechanics; sediment transport, waves and coastal engineering; multi-scale, multi-phenomena models and computations; biofluid mechanics, micro and nanoscale flow phenomena, and microfluidics. Proposed research should contribute to the basic understanding of fluid dynamics, thus enabling the better design, predictability, efficiency, and control of systems that involve fluids. Proposals addressing innovative uses of fluids in materials development, manufacturing, biotechnology, nanotechnology , clinical diagnostics and drug delivery, sensors development and integration, energy and the environment, are encouraged.	Full Proposal Window: August 15, 2008 - September 15, 2008
http://www.nsf.gov/funding/pgm_summ.jsp?psid=13364	National Science Foundation (NSF)	PD 08-1415	9/15/2008	Average award: \$80K	Particulate and Multiphase Processes The Particulate and Multiphase Processes program supports fundamental and applied research on mechanisms and phenomena governing particulate and multiphase processes, including granular and granular-fluid flows, particle/bubble/droplet interactions, aerosol science and technology, suspensions, micro- and nano-structured fluids , self- and directed-assembly of nanostructures, and related instrumentation and diagnostics. Innovative research is sought that contributes to improving the basic understanding, design, predictability, efficiency, and control of particulate and multiphase processes with particular emphasis on: new frontiers in nanotechnology , novel manufacturing techniques, nano-metrology , multiphase transport in biological systems, environmental sustainability, critical infrastructure systems, and complex engineering systems. Collaborative and interdisciplinary proposals are encouraged; proposals that include a combination of experimental and theoretical approaches are more likely to receive funding than solely theoretically or experimentally oriented work. Highly reviewed projects generally demonstrate a strong scientific basis together with clear practical applications.	Full Proposal Window: August 15, 2008 - September 15, 2008

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.nsf.gov/funding/pgm_summ.jsp?pi_ms_id=13367	National Science Foundation (NSF)	PD 08-1406	9/15/2008	Average award: \$90K	Thermal Transport Processes The Thermal Transport Processes program supports research aimed at gaining a basic understanding of the microscopic and macroscopic levels of thermal phenomena underlying energy conversion, the synthesis and processing of materials, cooling and heating of buildings and equipment, the interaction of industrial processes with the environment, the propulsion of air and land-based vehicles, and thermal phenomena in biological and environmental systems. The program supports fundamental research and education in transport processes that occur by thermal gradients and thermal history, and their manipulation to achieve engineering goals. This engineering science forms an important part of the intellectual infrastructure of a number of modern technologies.	Full Proposal Window: August 15, 2008 - September 15, 2008
http://www.nsf.gov/funding/pgm_summ.jsp?pi_ms_id=501025	National Science Foundation (NSF)	PD 08-7236	9/15/2008	The average annual award size for the program is: -- \$100,000 for individual investigators -- \$200,000 for multiple investigators	Biophotonics, Advanced Imaging, and Sensing for Human Health (BISH) Examples of topics include: Low Coherence Sensing at the Nanoscale - - Low coherence enhanced backscattering (LEBS), n-dimensional elastic light scattering, and angle- resolved low coherence interferometry for early cancer detection (dysplasia) Neuro-photonics - - Development of new biocompatible detection technologies that could serve as massively parallel interfaces for communicating with networks of cells such as brain tissue slices. Studies of photon activation of neurons at the interface of nanomaterials attached to cells Photon-cell Interactions - - Fundamental studies of novel photonic properties of nanoparticles and optical reporters and their interaction with cells and their internal organelles Nanoparticle fluorescent quantum-dots Nanofluidics and nanochannel interconnects	Full Proposal Window: August 15, 2008 - September 15, 2008
http://www.grants.gov/search/search.do?sessId=HtkSDVvph1csy1qvZp2m2R3K52F1pQ5sTzwfJvq6J6TZ1pyGf7mpl-1148754599?oppld=14612&flag2006=true&mode=VIEW	Defense Advanced Research Projects Agency (DARPA)	BAA-07-53	9/18/2008	Not available	Micro Inertial Navigation Technology (MINT) DARPA is soliciting innovative research and development (R&D) proposals in the area of Micro Inertial Navigation Technology (MINT). Proposed research should investigate innovative approaches that enable revolutionary advances in science, devices, or systems. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice. The overall goal of this program is to create navigation sensors that use secondary inertial variables, such as velocity, to enable long term precise navigation that a traditional IMU equipped only with accelerometers and gyros cannot accomplish. This program seeks the creation of micro and nano scale low-power navigation sensors that allow long term (hours to days) GPS denied precision navigation. The sensors should be small enough to be placed in small compartments, such as the shoe sole or small UAVs, where zero relative velocity measurement may be accomplished with high accuracy. The power consumption of the sensors should be small, ideally compatible with energy harvested during locomotion, so that the weight load due to batteries powering the sensors is minimized. The sensor technology should work over wide temperature range and shock environment that is typical in DOD applications	Jun 29, 2008 First round proposals were due on 18 September 2007. The above date is the closing date of the BAA.
http://www.science.doe.gov/grants/FAPN08-01.html	DOE-Office of Science	DE-PS02-08ER08-01	9/30/2008	\$400M	Annual Notice: Continuation of Solicitation for the Office of Science Financial Assistance Program See solicitation -- nanotechnology topics throughout	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.fbo.gov/sp/g/USAF/AETC/TynAFB/CS/BAA0801TYN-LGCB/listing.html	Air Force Research Laboratory (AFRL)	BAA0801TYN-LGCB	9/30/2008	Not available	Broad Agency Announcement, R&D Research area: Biofunctionalized Materials - Design, construct and understand materials that integrate biological molecules with inorganic support materials. Fundamental research should address molecular characterization of the bio/nano interface and understanding behavior of biomolecules fixed in solid state materials. Engineering research should address integration of biofunctionalized nanomaterials and composites with devices and practical supports, e.g. transducers, electrodes, fabrics. Specific areas of interest include: sensor component development to detect chemical and biological threats, materials used for decontamination/threat neutralization processes, chemical and microbiological barrier materials, and fuel cell biomaterials.	
http://www.fbo.gov/sp/g/USAF/AFMC/AFRL/WS/BAA%2D04%2D08%2DPKM/listing.html	Air Force Research Laboratory (AFRL)	04-08-PKM	9/30/2008	FY08: \$50M	Defense Production Act Title III Production Technology Production Technology Topics: H. Nanotechnology Materials and Device Production – Nanotechnology materials will be an enabling and transformational technology for a large range of military systems involving aircraft, satellites, ships, ground combat vehicles, and weapons and troops in combat. The promises for greatly improved performance and new weapon concepts offer such powerful impact for the military that the DoD must ensure that it has timely and affordable access to sufficient quantities of key nanomaterials for weapon systems	
http://www.nsf.gov/funding/pgm_summ.jsp?psid=13574	National Science Foundation (NSF)	PD 05-7478	10/1/2008	Not available	Dynamical Systems The Dynamical Systems program supports fundamental and innovative advances in the understanding, design, and operation of dynamic systems, such as nonlinear, hybrid, time-varying, multi-energy domain and distributed dynamical systems; examples of application areas include acoustics and vibration analysis, noise and vibration control technologies, kinematic relationships, biological systems, micro and nano-scale systems, multi-scale dynamic systems, large-scale interconnected complex systems, integrated analysis and design of dynamic systems, theory and application of dynamical systems (modeling, analysis, simulation and synthesis), and simulation-based engineering and science.	Full Proposal Window: September 1, 2008 - October 1, 2008 Full Proposal Window: January 15, 2009 - February 15, 2009
http://www.nsf.gov/funding/pgm_summ.jsp?psid=13342	National Science Foundation (NSF)	PD 05-1786	10/1/2008	Not available	Manufacturing Enterprise Systems (MES) The Manufacturing Enterprise Systems program addresses research on design, planning and control of operations in manufacturing enterprises, from shop floors to the associated procurement and distribution supply chains. MES replaces the Production Systems program, which formerly sponsored research on these topics. Contributions should impact and extend the range of analytical and computational techniques addressed to extended enterprise operations, and/or advance novel models offering policy insights or the prospect of implementable solutions. ... Recent topics funded ... Reliability and yield analysis in nano-fabrication ...	Full Proposal Window: September 1, 2008 - October 1, 2008
http://www.nsf.gov/funding/pgm_summ.jsp?psid=13356	National Science Foundation (NSF)	PD 05-1633	10/1/2008	Not available	Material Design and Surface Engineering The Material Design and Surface Engineering program element supports generic research on links between microstructure design and control and properties, performance, and engineering of materials and surfaces for novel applications in civil and mechanical systems and components. Research is also included that expands the knowledge base on: the design of materials, coatings, and surface treatments for service under extreme conditions; tribology, corrosion, friction and wear; novel materials solutions for life-cycle design, ecomaterials, nano-technology , and biomedical applications and related model based simulation and computational materials engineering.	Full Proposal Window: September 1, 2008 - October 1, 2008 Full Proposal Window: January 15, 2009 - February 15, 2009

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.nsf.gov/funding/pgm_summ.jsp?pi_ms_id=13355&org=ENG&from=fund	National Science Foundation (NSF)	PD 05-1630	10/1/2008	Not available	Mechanics and Structures of Materials The Mechanics and Structures of Materials (MSM) program element supports research on computational, theoretical, analytical and experimental solid mechanics, biomechanics, and nanomechanics; model based simulation and constitutive models; and the link of microstructure to nano -, meso- and macro-scale structural behavior. The program also supports experimental and analytical research on deformation, fatigue, and fracture and underlying nano - and micro-structural states and their origin, transformation and evolution.	Full Proposal Window: September 1, 2008 - October 1, 2008
http://www.nsf.gov/funding/pgm_summ.jsp?pi_ms_id=13523	National Science Foundation (NSF)	PD 05-7479	10/1/2008	Not available	Nano and Bio Mechanics The Nano and Bio Mechanics (NBM) program element supports research in mechanical properties of engineering materials and systems containing nanoscale features, such as grains, layers, precipitates or composites; mechanical properties of biological materials, which include cell, tissues, muscles, bones and prosthetic implants; design of materials suitable for prosthetic implants; relationship between nanomechanics, adhesion and tribological properties; effects of environment, surface chemistry and temperature: computational and experimental tools to study nano and bio mechanics of materials.	Full Proposal Window: September 1, 2008 - October 1, 2008
http://www.nsf.gov/funding/pgm_summ.jsp?pi_ms_id=13347	National Science Foundation (NSF)	PD 05-1788	10/1/2008	Not available	NanoManufacturing (NM) The NanoManufacturing Program was established in 2001 to promote fundamental research and education at the nanoscale, and to transfer developments in nanoscience and nanotechnology discoveries from the laboratory to industrial application with prominent societal impacts. The program emphasizes scaleup of nanotechnology for high rate production, reliability, robustness, yield, efficiency and cost issues for manufacturing products and services. NanoManufacturing capitalizes on the special material properties and processing capabilities at the nanoscale, and promotes integration of nanostructures to functional micro devices and meso/macroscale architectures and systems, as well as the interfacing issues across dimensional scales. The program covers interdisciplinary research and promotes multi-functionality across all energetic domains, including mechanical, thermal, fluidic, chemical, biochemical, electromagnetic, optical etc. The focus of NanoManufacturing is in a systems approach, encompassing nanoscale materials and structures, fabrication and integration processes, production equipment and characterization instrumentation, theory/modeling/simulation and control tools, biomimetic design and integration of multiscale functional systems, and industrial application. The program places special emphasis in NanoManufacturing education and training of the workforce, involvement of socio-economic sciences, addressing the health, safety and environmental implications, development of manufacturing infrastructure, as well as outreach and synergy of the academic, industrial, federal, and international community. The program has a special interest in environmental, health, and safety (EHS) aspects, as well as ethical, legal, and societal implications (ELSI) of nanomanufacturing.	Full Proposal Window: September 1, 2008 - October 1, 2008 Full Proposal Window: January 15, 2009 - February 15, 2009
http://www.grants.gov/search/search.do?oppld=10666&mode=VIEW	National Science Foundation (NSF)	PD 05-1518	10/7/2008	Not available	Electrical, Communications and Cyber Systems Power, Controls and Adaptive Networks (PCAN) (AKA, Control, Networks & Computational Intelligence (CNCI)) The program also invites proposals dealing with control theory in bioelectronics, including molecular biology, genomics, biotechnology and robotics. In addition, areas of interest include computational video and imaging, integrated sensor networks, autonomic communication networks, quantum computing, embedded control, and measurement and control of micro-scale and nano-scale devices and systems.	Supplement Deadline Date: April 1, 2008 REU/RET Supplements Full Proposal Window: September 7, 2008 - October 7, 2008 Full Proposal Window: January 7, 2009 - February 7, 2009

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.nsf.gov/funding/pgm_summ.jsp?pi_ms_id=13379&org=NSF&more=Y	National Science Foundation (NSF)	PD 05-1517	10/7/2008	Not available	Electronics, Photonics and Device Technologies (EPDT) The Electronics, Photonics and Device Technologies (EPDT) program seeks to improve the fundamental understanding of devices and components based on the principles of electronics, photonics, magnetism, electro-optics, electromagnetics, electromechanics, and related physical phenomena. The program invites proposals for research leading to the development of high performance micro and nanoscale devices and components, and to advanced methods for design, modeling and simulation of devices and components that define new and improved capabilities and applications. Efficient and cost-effective experimental techniques for processing, fabrication and manufacturing are also of interest. In addition, the program seeks proposals to advance the frontiers of spin electronics, organic electronic and photonic devices and to address new approaches used in integrated circuits, interconnects and packaging. The EPDT program further seeks proposals in related topics on quantum and molecular engineering and quantum communication and computing. The program encourages new ideas and alternative strategies and solutions to the challenges identified in the International Technology Roadmap for Semiconductors (ITRS) to support continued advances in silicon nanoelectronics and beyond. ...	Full Proposal Window: Supplement Deadline Date: April 1, 2008 REU/RET Supplements Full Proposal Window: September 7, 2008 - October 7, 2008
http://www.nsf.gov/funding/pgm_summ.jsp?pi_ms_id=13381	National Science Foundation (NSF)	PD 05-7564	10/7/2008	Not available	Integrative, Hybrid & Complex Systems (IHCS) The Integrative, Hybrid and Complex Systems (IHCS) program supports innovative research in areas that integrate device concepts and systems principles in the design, development and implementation of new nano/micro/macro hybrid and complex systems with engineering solutions for domain specific applications. Hybrid systems incorporating both continuous and discrete representations are of increasing interest in the study of distributed networks. Proposals are sought that address fundamental research issues associated with modeling, design, simulation and development of engineering systems with applications in telecommunications, homeland security, biotechnology and manufacturing. ...	Full Proposal Window: Supplement Deadline Date: April 1, 2008 REU/RET Supplements Full Proposal Window: September 7, 2008 - October 7, 2008
http://www.nsf.gov/funding/pgm_summ.jsp?pi_ms_id=5352	National Science Foundation (NSF)	PD 03-1774	11/7/2008	Not available	Ceramics (CER) Supports research investigating the characteristics of ceramic materials as they relate to the complex interplay among processing, development, and manipulation of microstructure, and properties and their ultimate performance in various applications and environments. The materials studied include oxides, carbides, nitrides, and other ceramics, including diamond and carbon-based materials. The microstructures investigated range from crystalline, polycrystalline, and amorphous to composite and nanostructured . Potential uses include, but are not limited to, electronic and electrical, electrochemical, structural, optical/photonic, and biological/medical applications.	
http://www.nsf.gov/funding/pgm_summ.jsp?pi_ms_id=5353	National Science Foundation (NSF)	PD 03-1775	11/7/2008	Not available	Electronic Materials (EM) Supports research that investigates the fundamental phenomena associated with the synthesis and processing of electronic and photonic materials. The objective is to increase fundamental understanding and develop predictive capabilities for relating synthesis, processing, and microstructure of these materials to their properties and performance in various applications and environments. Topics supported include basic processes and mechanisms associated with nucleation and growth of thin films; nanostructure definition and etching processes; bulk crystal growth; and the interrelationship among experimental conditions, phenomena, and properties.	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.nsf.gov/funding/pgm_summ.jsp?psid=13623	National Science Foundation (NSF)	PD 05-1765	11/7/2008	Not available	<p>Condensed Matter and Materials Theory (CMMT)</p> <p>Supports theoretical and complementary computational research in the topical areas represented in DMR programs, including condensed matter physics, polymers, solid-state chemistry, metals, electronic materials, and ceramics. The program supports fundamental research that advances conceptual, analytical, and computational techniques for materials research. A broad spectrum of research is supported using electronic structure methods, many-body theory, statistical mechanics, and Monte Carlo and molecular dynamics simulations, along with other techniques, many involving advanced scientific computing. Emphasis is on approaches that begin at the smallest appropriate length scale, such as electronic, atomic, molecular, nano-, micro-, and mesoscale, required to yield fundamental insight into material properties, processes, and behavior and to reveal new materials phenomena. Areas of recent interest include strongly correlated electron systems; low-dimensional systems; nonequilibrium phenomena, including pattern formation, microstructural evolution, and fracture; high-temperature superconductivity; nanostructured materials and mesoscale phenomena; quantum coherence and its control; and soft condensed matter, including systems of biological interest.</p>	
http://www.nsf.gov/funding/pgm_summ.jsp?psid=5351	National Science Foundation (NSF)	PD 03-1771	11/7/2008	Not available	<p>Metals (MET)</p> <p>... Metals research encompasses the broad areas of physical and mechanical metallurgy. Topics supported include phase transformations and equilibria; morphology; solidification; surface modification, structure, and properties; interfaces and grain boundary structure; nanostructures; corrosion and oxidation; defects; deformation and fracture; and welding and joining.</p>	
http://www.nsf.gov/funding/pgm_summ.jsp?psid=5357	National Science Foundation (NSF)	PD 03-1773	11/7/2008	Not available	<p>Polymers (POL)</p> <p>Supports basic research and education on polymeric materials. The program portfolio is mainly experimental and highly diverse with components of materials science, chemistry, physics, and related disciplines. Polymers are studied across the nano-to-macro continuum through fundamental materials-focused scientific approaches. Areas addressed include synthesis, molecular assembly, characterization, phase behavior, structure, morphology, and properties. Particular focus is on new materials or materials with novel and/or superior properties, as well as on fundamental understanding of structure-property relationships. Proposals of high potential impact for research and education in the above areas are welcome.</p>	
http://heron.nrl.navy.mil/contracts/0708baa/710701.htm	Naval Research Laboratory (NRL)	BAA-07-01	12/31/2008	Not available	<p>Naval Research Laboratory: Broad Agency Announcement Physical/Structural/Acoustics BAA 71-07-01</p> <p>The Naval Research Laboratory (NRL) is interested in proposals of theoretical and experimental studies of acousto-elastic systems and parameters by means of physical techniques, and of physical systems and parameters by means of acousto-elastic techniques. NRL's experimental programs are mainly carried out in a laboratory setting, typically involving state-of-the-art digital electronic, optical, fiber optic, acoustic, and micro-nano structure fabrication capabilities. A large component of the work is carried out in the three structural acoustic pool and in-air facilities operated by NRL and in its low temperature-micro and nano structures laboratories, two of which are in the NRL Nano-facility. Results are obtained in solids, fluids, composites, microstructures and nanostructures by observing fundamental physical acoustic mechanisms in materials and structures possessing various properties, shapes, and surfaces.</p>	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://heron.nrl.navy.mil/contracts/0708baa/630704.htm	Naval Research Laboratory (NRL)	BAA-07-01	12/31/2008	Not available	<p>Naval Research Laboratory: Broad Agency Announcement Materials Science of Energetic Thin-Film Deposition Processes BAA 63-07-04</p> <p>... The Naval Research Laboratory (NRL) is interested in receiving experimental and theoretical proposals that address the fundamental processes which control film microstructure and properties, and that characterize and apply the resulting films. Topics of interest include the formation of new metastable phases, epitaxial growth, films with controlled nanophases, fabrication of tailored composition profiles, multiplayer films for opto-electronics, optics, and biomedical applications, and hard coatings for wear and corrosion resistance. Fundamental research includes the effects of ion bombardment on gas adsorption and desorption, on film orientation, microstructure, adhesion and intrinsic stress.</p>	
http://heron.nrl.navy.mil/contracts/0708baa/630702.htm	Naval Research Laboratory (NRL)	BAA-07-01	12/31/2008	Not available	<p>Naval Research Laboratory: Broad Agency Announcement Quantum Information Science and Technology BAA 63-07-02</p> <p>... The goal of the NRL Quantum Information Science and Technology (QuIST) program is to demonstrate advances required for practical use of quantum logic and information in computing, communications, and other applications.</p> <p>...</p>	
http://heron.nrl.navy.mil/contracts/0708baa/560706.htm	Naval Research Laboratory (NRL)	BAA-07-01	12/31/2008	Not available	<p>Naval Research Laboratory: Broad Agency Announcement Optical Sciences R&D BAA 56-07-06</p> <p>Optical Science Division of the Naval Research Laboratory (NRL) is seeking proposals for innovative research supporting ongoing programs within the Optical Sciences Division related to a wide variety of topics in the following areas:</p> <p>... (3) Glass and processing techniques for nanochannel glass technology and holey fibers; novel nonlinear optical materials for optical limiters and switches to protect eyes and sensors against intense laser radiation; photonic band-gap materials; narrow band gap superlattices; quantum wells, wires and dots; bioconjugated quantum dots to probe cellular and environmental behavior; novel nanostuctures; the interaction of light with single microdroplets; development of real-time in-situ optical instrumentation to detect bioaerosols, including single particles on-the-fly; development of type II "W" mid-IR lasers and quantum cascade lasers; organic light emitting sources and optoelectronics; slow light studies; nonlinear optical probes such as Fast CARS; and development of condition based sensors for oil debris monitoring....</p>	
http://heron.nrl.navy.mil/contracts/0708baa/690701.htm	Naval Research Laboratory (NRL)	BAA-07-01	12/31/2008	Not available	<p>Naval Research Laboratory: Broad Agency Announcement Research in Bio/Molecular Science and Engineering -- BAA 69-07-01</p> <p>The Center for Bio-Molecular Science and Engineering (Code 6900) of the Naval Research Laboratory (NRL) conducts multidisciplinary research in biotechnology using the techniques of modern molecular biology, biophysics, chemistry, microelectronics, and engineering to fabricate biosensors, biomaterials, and advanced systems. [Nanotechnology research topics found throughout the BAA]</p>	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://heron.nrl.navy.mil/contracts/0708baa/610707.htm	Naval Research Laboratory (NRL)	BAA-07-01	12/31/2008	Not available	<p>Naval Research Laboratory: Broad Agency Announcement Computational Chemistry -- BAA 61-07-07</p> <p>... The Theoretical Chemistry Section of the Naval Research Laboratory (NRL) is interested in receiving proposals to perform first-principles and semi-empirical simulations of solid-state and materials-related chemistry using high-performance computing. Specific problems of interest include: developing fast, scalable, zero- and one-dimensional, electronic structure and chemical dynamics using Gaussian-based density-functional theory; transport properties of nanostuctures including nanowires; shock-induced chemical reactions in energetic materials; the dynamics of chemical vapor deposition; and materials processing and growth via cluster-surface collisions. Also of interest to the Theoretical Chemistry Section are simulations of friction and adhesion at the atomic-scale, molecular dynamics simulations of structural and elastic properties of bulk systems, surfaces, and interfaces composed of metals, metal-oxides, and related materials, and molecular dynamics simulations of hypervelocity cluster-surface impacts and carbon nanostuctures. ...</p>	
http://heron.nrl.navy.mil/contracts/0708baa/610704.htm	Naval Research Laboratory (NRL)	BAA-07-01	12/31/2008	Not available	<p>Naval Research Laboratory: Broad Agency Announcement Corrosion Processes, Control, Mitigation, and Technology -- BAA 61-07-04</p> <p>The Naval Research Laboratory (NRL) is interested in receiving proposals for research and development in materials performance, environmental effects, corrosion processes, corrosion control and marine coatings technology. These efforts may include studies from basic corrosion mechanistic studies through applied technology and corrosion control initiatives. The areas of research and development activities of interest to NRL include, but are not limited to the following: ...</p> <p>... (2) Improved properties of materials, inhibitors, surface modification and passivation, property enhancement related to materials physical property improvements, improved galvanic compatibility, minimize microbial influenced corrosion (MIC), electrochemical enhancement, plating, hardening, carburization and low temperature carburization, surface coatings, welding techniques, annealing, reduced susceptibility to stress corrosion cracking and hydrogen effects, novel methods for metal extraction, ionic liquids, rapid prototyping methods, oxidation/reduction effects. Materials efforts may contribute toward Navy vessels and may include but are not limited to: steels, HSLA steels, stainless steels, nickel alloys, aluminum alloys, titanium, copper/bronze, magnesium alloys, composites, polymers, anode materials, and novel materials, such as nano-based, amorphous, implanted, flame/plasma spray, novel microstructure and unique technology.</p>	
http://heron.nrl.navy.mil/contracts/0708baa/630701.htm	Naval Research Laboratory (NRL)	BAA-07-01	12/31/2008	Not available	<p>Naval Research Laboratory: Broad Agency Announcement Spins in Semiconductors -- BAA 63-07-01</p> <p>... NRL is also interested in other highly innovative ways to exploit the spin degree of freedom in other potential spintronics applications including but not limited to memory storage, nanoscale electronics, nanoscale photonics, and nanoscale biology, mechanics, and sensors. The goal is to provide significantly enhanced performance or totally new functionality in electronics, opto-electronics sensors and quantum information processing.</p>	
http://www.darpa.mil/solicitations/BAA07-01/index.html	Defense Advanced Research Projects Agency (DARPA)	BAA 07-01	12/31/2008	Not available	<p>Strategic Technologies</p> <p>Topic cx c. Biofabrication processes for improved nanostuctured devices and materials</p>	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://grants.nih.gov/grants/guide/rfa-files/RFA-HL-08-005.html	NIH-National Heart, Lung, and Blood Institute (NHLBI)	RFA-HL-08-005	1/22/2009	\$3.5M in FY09 for 5-8 projects	Immunomodulatory, Inflammatory, and Vasoregulatory Properties of Transfused Red Blood Cell Units as a Function of Preparation and Storage (R01) The goal of this Funding Opportunity Announcement (FOA) in blood banking and transfusion medicine is to solicit novel basic and translational research projects which will identify the molecular and cellular changes that occur during red blood cell unit preparation and storage; and evaluate the immunomodulatory, inflammatory, and vasoactive effects of storage lesion elements from red blood cell units on the blood vessel wall, host cells, and tissue oxygenation. Only research applications involving human red blood cell units (and their components) suitable for transfusion in the U.S. and that are collected and stored according to methods approved by the U.S. FDA will be considered responsive to this FOA. Applications are encouraged that propose collaborations between investigators from different disciplines such as hematology, blood banking, transfusion medicine, immunology, cell biology, rheology, nanotechnologies , molecular biology, and other relevant disciplines. This program will promote interactions and resource sharing among the award recipients to maximize their research efforts.	Letters of Intent Receipt Date(s): April 21, 2008 December 19, 2008 Application Due Date(s): May 21, 2008 January 21, 2009
http://www.fbo.gov/spg/DON/NAVAIR/N00421/N00421-08-R-0043/listing.html	Naval Air Systems Command (NAVAIR)	N00421-08-R-0043	2/7/2009	Not available	A -- Broad Agency Announcement for Warfighter Developmental Protective Clothing and Devices Areas of interest include but are not limited to: ... (2) development of micro/nanotechnology applicable to life support and protective devices	
http://www.grants.gov/search/search.do?searchId=HFRSv9JRvBn88MyNj0KGbJcSpRTS7PQm9p8zIFchGSCn7GyzV1Y1-13627118207oppld=16872&flag2006=true&mode=VIEW	Defense Advanced Research Projects Agency (DARPA)	BAA 08-18	2/13/2009	Not available	Microsystems Technology Office-Wide BAA Research areas of current interest in MTO, include, but are not limited to: ... 4. Nanophotonics and nanoelectronic device and circuit demonstrations ... 8. Quantum information science and technology ... 22. Scaling of macro-systems to micro and nano-scale ... 23. Micro and NanoElectroMechanical Systems (MEMS and NEMS)	
http://www.grants.gov/search/search.do?searchId=HrkSDVvph1csyTqvz2p2m2R3K52F1pGf58TzwfJvq6J6Tz1pyGf7mp1-11487545997oppld=170218&flag2006=true&mode=VIEW	Defense Advanced Research Projects Agency (DARPA)	BAA 08-22	2/27/2009	Not available	Defense Sciences Research & Technology Areas of interest: -- Technologies for fabrication of particles and functional structures in the nano- and micro-to- millimeters size range, with arbitrary geometry -- Micro/ nano-scale technologies for non-invasive and/or remote assessment of health (e.g., vital signs, blood chemistry)	
http://grants.nih.gov/grants/guide/pa-files/PA-07-025.html	NIH-National Institute of Diabetes and Digestive and Kidney Diseases	PA-07-025	3/6/2009	Not available	Non-Invasive Methods for Diagnosis and Progression of Diabetes, Kidney, Urological, Hematological and Digestive Diseases (R01) ... Areas of interest for this initiative could include the following: ... Application to NIDDK specific diseases of novel noninvasive or minimally invasive detection methods currently used in non-biological fields (nanosensors , T-rays).	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.nsf.gov/pubs/2008/nsf08529/nsf08529.htm	National Science Foundation (NSF)	NSF 08-529	3/17/2009	FY08: \$400-500K	<p>Petascale Computing Resource Allocations (PRAC)</p> <p>In recent decades, the development of powerful computing resources has been driven by the need to solve challenging questions in science and engineering with significant impacts on knowledge about the natural world, on industrial competitiveness, and on national security. At the same time, as researchers in more and more areas of science and engineering have developed techniques for using computation to understand their grand challenges, there has been a steady expansion in the breadth of the research frontier at which large-scale computation has become an essential tool. As we approach the second decade of the twenty-first century, researchers are preparing to apply new computational resources, an order of magnitude more powerful than those presently available, to an extremely varied range of problems. This range includes materials science, nano-engineering, fluid dynamics, climate and earth system dynamics, cosmology and astrophysics, chemistry and biochemistry, economics and social science, neuroinformatics and bioinformatics, as well as many different topics within physics and engineering. ...</p> <p>This solicitation seeks proposals to make use of Blue Waters for breakthrough research in any domain supported by the National Science Foundation or another federal agency. ...</p>	Full Proposal Deadline(s) March 31, 2008 March 17, 2009 March 17, Annually Thereafter
https://www3.natick.army.mil/0709baa.pdf	Army-Armaments Research, Development and Engineering Center	07 - 09 Natick BAA	3/31/2009	Not available	<p>Broad Agency Announcement (BAA) (Revised Version as of 15 May 2007 – Made changes to Section VI.F and deleted last paragraph under Section I - Introduction)</p> <p>10. Materials Nanotechnology. Nanotechnology, the understanding and manipulation of matter at the nanometer scale, offers opportunities to create materials with new or significantly improved properties, relative to known materials. Examples include the numerous reports of small amounts of nanoparticle additives (such as montmorillonite clays or carbon nanotubes) giving rise to mechanical or electrical properties in polymer composites that typically require much higher loadings of conventional additives to achieve. In some cases, properties are observed in materials with controlled nanometer-scale structures that have not been realized in more conventional material structures. One example is the extraordinary diffusion barrier properties of some nanoclay-filled polymers. Periodic structures with nano-scale features are known to interact strongly with electromagnetic radiation having wavelengths on the order of the feature size. These effects can be used to create new types of resonant structures for enhanced optical performance, for instance the photonic crystal behavior exhibited by materials with controlled structural features on the nanometer scale. Nano-scale periodic structures are also used to create non-conventional optical components such as filters, polarizers and waveplates that can be tuned to operate in specific wavelength regions. ...</p>	
http://grants.nih.gov/grants/guide/pa-files/PAR-07-230.html	NIH-National Cancer Institute	PAR-07-230	4/16/2009	Pilot projects / programs up to \$120K / year & 3 years; The combined direct costs budgeted in the two linked applications from the MSI and the Cancer Center together cannot exceed \$275K per year.	<p>Feasibility Studies for Collaborative Interaction for Minority Institution/Cancer Center Partnership (P20)</p> <p>Nanotechnology research interests found in the following topics: 1) Cancer Research; 2) Cancer Training; and 3) Cancer Education</p>	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://grants.nih.gov/grants/guide/pa-files/PA-06-209.html	NIH-National Institute on Drug Abuse	PAR-06-209	5/2/2009	Total of \$1.5M / year Limit of \$100K / year for 2 years direct costs	<p>Cutting-Edge Basic Research Awards (CEBRA) (R21)</p> <p>The goal of NIDA's CEBRA program is to accelerate the pace of discoveries that can advance addiction research by encouraging scientifically sound proposals that focus on innovation. The CEBRA seeks to encourage researchers to explore new approaches, test imaginative new ideas, and challenge existing paradigms in drug addiction research in both human and animal models. The CEBRA program will support high-risk, high impact research that either: (1) tests a highly novel and significant hypothesis for which there is scant precedent or preliminary data and which, if confirmed, would have a substantial impact on current thinking; or (2) develops or adapts innovative techniques or methods for addiction research. ...</p> <p>... Examples of relevant research include, but are not limited, to the following:</p> <p>... Application of novel or emerging technologies (such as biosensors, nanotechnology, metabolomics, or transcriptome analysis) to address questions about the cellular biology of drug addiction.</p>	
http://grants.nih.gov/grants/guide/pa-files/PA-06-142.html	NIH-National Institute of Diabetes and Digestive and Kidney Diseases	PA-06-142	5/2/2009	Max of \$275K over an R21 two-year period, with no more than \$200K in direct costs allowed in any single year.	<p>Non-Invasive Methods for Diagnosis and Progression of Diabetes, Kidney, Urological, Hematological And Digestive Diseases (R21)</p> <p>... Areas of interest for this initiative could include the following: ... Application to NIDDK specific diseases of novel noninvasive or minimally invasive detection methods currently used in non-biological fields (nanosensors, T-rays).</p>	
http://grants.nih.gov/grants/guide/pa-files/PA-06-278.html	National Institutes of Health (NIH)	PA-06-278	7/2/2009	Max of \$275K over an R21 two-year period, with no more than \$200K in direct costs allowed in any single year.	<p>Neurotechnology Research, Development, and Enhancement (R21)</p> <p>This FOA is expected to advance understanding of the nervous system and its product, behavior, through support of research, development, and enhancement of a wide range of technologies. Technologies and approaches appropriate for study, development and enhancement under this FOA include hardware (e.g., instruments, devices, etc.), software (e.g., computational algorithms, informatics tools, etc.), and wetware (e.g., imaging probes, genetic tools, etc.) that would be used to study the brain or behavior in basic or clinical research (or for clinical use). Research solicited under this FOA is not limited to any particular type of technology, level of analysis, or approach. ... Examples of hardware, software, and wetware that would be considered appropriate under this FOA for research, development and enhancement include, but are not limited to: ... Nanocrystals or quantum dots covalently bonded to neural receptor ligands...</p>	
http://grants.nih.gov/grants/guide/pa-files/PA-06-279.html	National Institutes of Health (NIH)	PA-06-279	7/2/2009	Size and duration of each award will vary	<p>Neurotechnology Research, Development, And Enhancement (R01)</p> <p>This FOA is expected to advance understanding of the nervous system and its product, behavior, through support of research, development, and enhancement of a wide range of technologies. Technologies and approaches appropriate for study, development and enhancement under this FOA include hardware (e.g., instruments, devices, etc.), software (e.g., computational algorithms, informatics tools, etc.), and wetware (e.g., imaging probes, genetic tools, etc.) that would be used to study the brain or behavior in basic or clinical research (or for clinical use). Research solicited under this FOA is not limited to any particular type of technology, level of analysis, or approach. ... Examples of hardware, software, and wetware that would be considered appropriate under this FOA for research, development and enhancement include, but are not limited to: ... Nanocrystals or quantum dots covalently bonded to neural receptor ligands...</p>	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://grants2.nih.gov/grants/guide/pa-files/PA-06-419.html	NIH-Multiple agencies	PA-06-419	9/2/2009	Varies from application to application	Bioengineering Research Grants (BRG)[R01] Many major biomedical research problems are best addressed using a multi-disciplinary approach that extends beyond the traditional biological and clinical sciences. Principles and techniques in allied quantitative sciences such as physics, mathematics, chemistry, computer sciences, and engineering are increasingly being applied to good effect in biomedical research. Bioengineering integrates principles from a diversity of technical and biomedical fields, and the resulting multi-disciplinary research is providing new basic understandings, novel products, and innovative technologies that improve basic knowledge, human health, and quality of life. Bioengineering also crosses the boundaries of scientific disciplines that are represented throughout academia, Federal laboratories, and industry. Recognizing the importance of bioengineering in public health, the Bioengineering Consortium (BECON; http://www.becon.nih.gov) was established in 1997 as a focus for bioengineering activities at the NIH. Solicited here, under the auspices of BECON, are grant applications that propose bioengineering research projects that serve the mission of one or more of the participating NIH institutes or centers.	
http://grants.nih.gov/grants/guide/pa-files/PA-07-042.html	NIH-National Cancer Institute	PA-07-042	9/2/2009	Phase I: Up to \$150K per year / 2 years Phase II: Up to \$1 M per year / 3 years	Image-Guided Cancer Interventions (SBIR [R43/R44]) ... Areas of activity responsive to this funding opportunity include, but are not limited to, research and development in the integration and optimization of some or all of the following component systems into an imaging system as a fully integrated IGI system, and clinical evaluations of the IGI systems for cancer; the component systems include energy (e.g., electromagnetic radiation, heat, cold) delivery and monitoring; drug and gene delivery; real-time data registration, analysis, and display; robotics; MEMS, nanodevices and particles; device tracking; physiological monitoring; and intraluminal devices, such as balloons, stents, endoscopes, and coils. ...	Phase II activities that do not include clinical evaluation are limited to a maximum budget of \$750,000 total cost per year.
http://grants.nih.gov/grants/guide/pa-files/PA-07-041.html	NIH-National Cancer Institute	PA-07-041	9/2/2009	Phase I: Up to \$150K per year / 2 years Phase II: Up to \$1 M per year / 3 years	Image-Guided Cancer Interventions (STTR [R41/R42]) ... Areas of activity responsive to this funding opportunity include, but are not limited to, research and development in the integration and optimization of some or all of the following component systems into an imaging system as a fully integrated IGI system, and clinical evaluations of the IGI systems for cancer; the component systems include energy (e.g., electromagnetic radiation, heat, cold) delivery and monitoring; drug and gene delivery; real-time data registration, analysis, and display; robotics; MEMS, nanodevices and particles; device tracking; physiological monitoring; and intraluminal devices, such as balloons, stents, endoscopes, and coils. ...	However, Phase II activities that do not include clinical evaluation are limited to a maximum budget of \$750,000 total cost per year.
http://grants.nih.gov/grants/guide/pa-files/PA-07-354.html	NIH-Multiple agencies	PA-07-354	3/6/2010	Varies from application to application	Bioengineering and Obesity (R01) Emerging technologies, such as nanotechnology, also offer unique opportunities for interfacing with engineering approaches to help address some of the problems in obesity research.	
http://grants.nih.gov/grants/guide/pa-files/PA-07-352.html	NIH-Multiple agencies	PAR-07-352	5/8/2010	\$2M	Bioengineering Research Partnerships (BRP)[R01] Many of today's biomedical problems are best addressed using a multi-disciplinary approach that extends beyond the traditional biological and clinical sciences. Bioengineering integrates principles from a diversity of technical and biomedical fields and crosses the boundaries of many scientific disciplines represented throughout academia, laboratories, and industry. The creativity of interdisciplinary teams is resulting in new basic understandings, novel products, and innovative technologies for addressing biomedical problems.	

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://grants.nih.gov/grants/guide/pa-files/PA-07-356.html	NIH-National Cancer Institute	PA-07-356	5/8/2010	Not available	Clinical Cancer Therapy and Prevention Research (R01) Progress in research in the areas of molecular cancer genetics, cancer epigenetics, cancer biology, and cancer drug development has led to discoveries of new agents and approaches for molecular targeting in novel cancer preventions and therapies, including those involving complementary and alternative medicine. These new agents and approaches suppress tumor growth through multiple mechanisms such as cell cycle control, activation of tumor suppressor genes, induction of cell apoptosis, essential signal transduction pathway blockage, anti-angiogenesis, tumor vaccines, tumor microenvironment modification, nano-particle drug delivery , etc. ...	
http://www.spaceref.com/news/viewst.html?pic=19048	NASA-Marshall Space Flight Center	12212005	7/31/2010	Not available	Future Collaborative Research and Education Opportunities Topic 5. MATERIALS SCIENCE The affiliated technology of Materials Science will be organized into focused research product teams that optimize materials science advancement to provide materials technologies that meet and exceed performance requirements for today's cutting edge space transportation and space science programs. Major areas of interest will include electronic and photonic materials, composite fiber development, polymer research, ceramics and nano-materials research , lightweight alloy development, materials characterization and production of in-space manufactured structures, and materials development for space environmental durability, including radiation shielding. Primary customers for this center will include NASA's Exploration Science Mission Directorate and the Science Mission Directorate.	
http://grants.nih.gov/grants/guide/pa-files/PA-07-435.html	NIH-Multiple agencies	PA-07-435	8/6/2010	Not available	Bioengineering Approaches to Energy Balance and Obesity (SBIR [R43/R44]) ... Emerging technologies, such as nanotechnology , also offer unique opportunities for interfacing with engineering approaches to help address some of the problems in obesity research. ...	
http://grants.nih.gov/grants/guide/pa-files/PA-07-436.html	NIH-Multiple agencies	PA-07-436	8/6/2010	Not available	Bioengineering Approaches to Energy Balance and Obesity (STTR [R41/R42]) ... Emerging technologies, such as nanotechnology , also offer unique opportunities for interfacing with engineering approaches to help address some of the problems in obesity research. ...	
http://grants.nih.gov/grants/guide/pa-files/PA-08-117.html	NIH-National Institute of Dental and Craniofacial Research (NIDCR)	PAR-08-117	8/14/2010	Up to \$ 1.1 M per year and a project period of up to 5 years	Interdisciplinary Research on Oral Manifestations of HIV/AIDS in Vulnerable Populations (P01) The aim of this FOA is to encourage the submission of interdisciplinary research proposals with three or four highly integrated projects and any necessary cores that will comprehensively address the existing gaps in our knowledge of the epidemiology, prevention and pathogenesis of the oral complications of HIV infection. Integrating expertise from diverse scientific fields such as virology, immunology, pathology, epidemiology, behavioral sciences, molecular biology, bioimaging, nanotechnology , systems biology, mathematical modeling and bioinformatics will facilitate the performance of cutting edge studies to advance the field.	Letters of Intent Receipt Date(s): July 13, 2008 July 13, 2009 July 13, 2010 Application Receipt Date (s): August 13, 2008 August 13, 2009 August 13, 2010

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://grants.nih.gov/grants/guide/pa-files/PA-08-002.html	NIH-National Institute of Mental Health, National Institute of Neurological Disorders and Stroke	PA-08-002	9/8/2010	Phase I: Up to \$300K per year / 2 years Phase II: Up to \$500K per year / 3 years	High Throughput Tools for Brain and Behavior (STTR [R41/R42]) The past decade has seen many significant advances in technical areas including computer vision, molecular biology, robotics, nanotechnology , microarray fabrication, imaging, etc. The last ten years have also produced tremendous resources and knowledge about neurobiology, its genetic underpinnings, and its expression in behavior. This initiative will bring these technology and biomedical areas together by soliciting applications to develop any of a wide variety of innovative tools for high throughput analysis of data relevant to brain and/or behavior.	
http://grants.nih.gov/grants/guide/pa-files/PA-08-001.html	NIH-National Institute of Mental Health, National Institute of Neurological Disorders and Stroke	PA-08-001	9/8/2010	Phase I: Up to \$300K per year / 2 years Phase II: Up to \$500K per year / 3 years	High Throughput Tools for Brain and Behavior (SBIR [R43/R44]) The past decade has seen many significant advances in technical areas including computer vision, molecular biology, robotics, nanotechnology , microarray fabrication, imaging, etc. The last ten years have also produced tremendous resources and knowledge about neurobiology, its genetic underpinnings, and its expression in behavior. This initiative will bring these technology and biomedical areas together by soliciting applications to develop any of a wide variety of innovative tools for high throughput analysis of data relevant to brain and/or behavior.	
http://grants.nih.gov/grants/guide/pa-files/PA-08-052.html	NIH-Multiple agencies	PA-08-052	1/8/2011	Size and duration of each award will vary	Nanoscience and Nanotechnology in Biology and Medicine (R01) ... The purpose of this funding opportunity is to stimulate nanoscience and nanotechnology research approaches that have the potential to make valuable contributions to biology and medicine. Nanoscience and nanotechnology can bring fundamental changes to the study and understanding of biological processes in health and disease, as well as enable novel diagnostics and interventions for treating disease. Thus, advances based on nanotechnology and nanoscience could result in a new era in healthcare. ...	
http://grants.nih.gov/grants/guide/pa-files/PA-08-053.html	NIH-Multiple agencies	PA-08-053	1/8/2011	Direct costs are limited to \$275K / 2-year period, with no more than \$200K direct costs allowed in any single year.	Nanoscience and Nanotechnology in Biology and Medicine (R21) ... The purpose of this funding opportunity is to stimulate nanoscience and nanotechnology research approaches that have the potential to make valuable contributions to biology and medicine. Nanoscience and nanotechnology can bring fundamental changes to the study and understanding of biological processes in health and disease, as well as enable novel diagnostics and interventions for treating disease. Thus, advances based on nanotechnology and nanoscience could result in a new era in healthcare. ...	
http://www.arl.army.mil/main/main/DownloadedInternetPages/CurrentPages/DoingBusinesswithARL/research/ARLBAA1102.doc	Army Research Laboratory (ARL), Army Research Office (ARO)	W911NF-07-R-0001	9/30/2011	Varies, depending upon the topic	ARL/ARO Core Broad Agency Announcement for Basic and Applied Scientific Research for Fiscal Years 2007 through 2011 Here is a sampling of topics with nanotechnology found in the BAA: 1.2. Solid Mechanics 2.2. Sensors, Actuators, and Micro-Mechanics 4.1 Solid State Devices 4.2. Advanced Materials and Materials Processing 6.1.1. Nanometer-scale physics 7.2. Solid Mechanics 7.5. Surfaces and Catalysis 8.1. Bioengineering 9.1. Materials Design 10.1 Solid State Devices 12.1. Condensed Matter Physics 13.5. Surfaces and Catalysis 14.1. Bioengineering 15.1. Materials Design	See also http://www.arl.army.mil/www/DownloadedInternetPages/CurrentPages/DoingBusinesswithARL/research/07-r-0003_rev.pdf . Funding # W911NF-07-R-0003

CINT - Current Nanotechnology Solicitations as of April 1, 2008

Link	Agency	Funding #	Deadline	Budget	Program Title / Most Focused Nanotechnology Synopsis	Comments
http://www.grants.gov/search/search.do?sessid=H6Hp9TGwx9Y1Z5ps0zssLMtXkpnvRxDiQMrtHt04LqzHbkw6v7MI-1648198584?oppld=11534&flag2006=true&mode=VIEW	Air Force Research Laboratory (AFRL) Space Vehicles Directorate	BAA-VS-07-03	11/2/2011	\$48M	<p>Broad Agency Announcement: Space Components Technology Open 5 Year Broad Agency Announcement</p> <p>Subtopic: INTEGRATED SPACE STRUCTURES: This area covers all structures technologies associated with satellites, launch vehicles, and interceptor missiles including: advanced lightweight antenna and optical structures, deployable structures, nano-reinforced structures and analysis, health monitoring, state sensing, reconfigurable structures, integrated sensing, spacecraft thermal management, precision deployment, multifunctional structures, advanced spacecraft components, precision optical components, and advanced manufacturing techniques. Proposals in launch vehicle structures technology such as primary and secondary payload adapters and dispensers, fairings and payload shrouds, high temperature thermal protection structures, composite cryogenic storage tanks, reentry structures, automated manufacturing technique and equipment development, and vehicle health monitoring systems are also included in this topic area. Design, manufacturing, modeling, integration, and testing to support these areas are also of interest.</p>	Periodically over the 5-year period, proposal call announcements (CALLS) may be issued to request proposals for specific research efforts. These CALLS will contain specific proposal due dates.
http://grants.nih.gov/grants/guide/pa-files/PAR-07-214.html	NIH-National Cancer Institute	PAR-07-214	3/6/2010	Usually less than \$500K in total direct costs in any one year of the project excluding third party indirect costs.	<p>Academic-Industrial Partnerships for Development and Validation of In Vivo Imaging Systems and Methods for Cancer Investigations (R01)</p> <p>Recent advances in the development of anatomical, functional, and molecular imaging methods are having a significant impact on clinical cancer research. Examples of pertinent fields include early cancer detection, screening, diagnosis, image-guided intervention, and therapy monitoring. The development and validation of the emerging imaging technologies and methods, however, are becoming increasingly complex. For example, there is a recent trend toward quantitative multi-modality imaging, in which the physical characteristics of one imaging system are used to improve the quantitative performance of another system. Multi-modality imaging systems, such as CT and PET, CT and SPECT, MRI and PET, or MRI and optical are being explored for their synergy in the medical imaging environment. The use of contrast agents or nano-carriers for transporting therapeutic agents adds complexity to the design, optimization, validation, and regulatory approval of fully integrated imaging systems. Because of this increased complexity, their effective implementation in multi-site clinical investigations and outcome research is often limited.</p>	

SPI-SNL-08-001355